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The processes of power are pervasive, complex, and often disguised in our society. Accordingly one finds in political science, in sociology, and in social psychology a variety of distinctions among different types of social power or among qualitatively different processes of social influence (1, 6, 14, 20, 23, 29, 30, 38, 40). Our main purpose is to identify the major types of power and to define them systematically so that we may compare them according to the changes which they produce and the other effects which accompany the use of power. The phenomena of power and influence involve a dyadic relation between two agents which may be viewed from two points of view: (a) What determines the behavior of the agent who exerts power? (b) What determines the reactions of the recipient of this behavior? We take this second point of view and formulate our theory in terms of the life space of P, the person upon whom the power is exerted. In this way we hope to define basic concepts of power which will be adequate to explain many of the phenomena of social influence, including some which have been described in other less genotypic terms.

Recent empirical work, especially on small groups, has demonstrated the necessity of distinguishing different types of power in order to account for the different effects found in studies of social influence. Yet there is no doubt that more empirical knowledge will be needed to make final decisions concerning the necessary differentiations, but this knowledge will be obtained only by research based on some preliminary theoretical distinctions. We present such preliminary concepts and some of the hypotheses they suggest.

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Power, Influence, and Change

Psychological Change

Since we shall define power in terms of influence, and influence in terms of psychological change, we begin with a discussion of change. We want to define change at a level of generality which includes changes in behavior, opinions, attitudes, goals, needs, values and all other aspects of the person's psychological field. We shall use the word "system" to refer to any such part of the life space.¹ Following Lewin (26, 305) the state of a system at time 1 will be denoted $s_1(a)$.

Psychological change is defined as any alteration of the state of some system a over time. The amount of change is measured by the size of the difference between the states of the system a at time 1 and at time 2: $ch(a) = s_2(a) - s_1(a)$.

Change in any psychological system may be conceptualized in terms of psychological forces. But it is important to note that the change must be coordinated to the resultant force of all the forces operating at the moment. Change in an opinion, for example, may be determined jointly by a driving force induced by another person, a restraining force corresponding to anchorage in a group opinion, and an own force stemming from the person's needs.

Social Influence

Our theory of social influence and power is limited to influence on the person, P , produced by a social agent, O , where O can be either another person, a role, a norm, a group or a part of a group. We do not consider social influence exerted on a group.

The influence of O on system a in the life space of P is defined as the resultant force on system a which has its source in an act of O . This resultant force induced by O consists of two components: a force to change the system in the direction induced by O and an opposing resistance set up by the same act of O .

By this definition the influence of O does not include P 's own forces nor the forces induced by other social agents. Accordingly the "influence" of O must be clearly distinguished from O 's "control" of P . O may be able to induce strong forces on P to carry out an activity (i.e., O exerts strong influence on P); but if the opposing forces induced by another person or by P 's own needs are stronger, then P will locomote in an opposite direction (i.e., O does not have control over P). Thus psychological change in

¹ The word "system" is here used to refer to a whole or to a part of the whole.

THE BASES OF SOCIAL POWER

P can be taken as an operational definition of the social influence of O on P only when the effects of other forces have been eliminated.

It is assumed that any system is interdependent with other parts of the life space so that a change in one may produce changes in others. However, this theory focuses on the primary changes in a system which are produced directly by social influence; it is less concerned with secondary changes which are indirectly effected in the other systems or with primary changes produced by nonsocial influences.

Commonly social influence takes place through an intentional act on the part of O . However, we do not want to limit our definition of "act" to such conscious behavior. Indeed, influence might result from the passive presence of O , with no evidence of speech or overt movement. A policeman's standing on a corner may be considered an act of an agent for the speeding motorist. Such acts of the inducing agent will vary in strength, for O may not always utilize all of his power. The policeman, for example, may merely stand and watch or act more strongly by blowing his whistle at the motorist.

The influence exerted by an act need not be in the direction intended by O . The direction of the resultant force on P will depend on the relative magnitude of the induced force set up by the act of O and the resisting force in the opposite direction which is generated by that same act. In cases where O intends to influence P in a given direction, a resultant force in the same direction may be termed positive influence whereas a resultant force in the opposite direction may be termed negative influence.

If O produces the intended change, he has exerted positive control; but if he produces a change in the opposite direction, as for example in the negativism of young children or in the phenomena of negative reference groups, he has exerted negative control.

Social Power

The strength of power of O/P in some system a is defined as the maximum potential ability of O to influence P in a .

By this definition influence is kinetic power, just as power is potential influence. It is assumed that O is capable of various acts which, because of some more or less enduring relation to P , are able to exert influence on P .² O 's power is measured by his maximum possible influence, though he may often choose to exert less than his full power.

² The concept of power has the conceptual property of potentiality; but it seems useful to restrict this potential influence to more or less enduring power relations between O and P by excluding from the definition of power those cases where the potential influence is so momentary or so changing that it cannot be predicted from the existing relationship. Power is a useful concept for describing social structure only if it

An equivalent definition of power may be stated in terms of the resultant of two forces set up by the act of O: one in the direction of O's influence attempt and another resisting force in the opposite direction. Power is the maximum resultant of these two forces:

$$\text{Power of O/P } (a) = (f_{a,x} - f_{a,z})^{\max}$$

where the source of both forces is an act of O.

Thus the power of O with respect to system a of P is equal to the maximum resultant force of two forces set up by any possible act of O: (a) the force which O can set up on the system a to change in the direction x , (b) the resisting force³ in the opposite direction. Whenever the first component force is greater than the second, positive power exists; but if the second component force is greater than the first, then O has negative power over P.

It is necessary to define power with respect to a specified system because the power of O/P may vary greatly from one system to another. O may have great power to control the behavior of P but little power to control his opinions. Of course a high power of O/P does not imply a low power of P/O; the two variables are conceptually independent.

For certain purposes it is convenient to define the range of power as the set of all systems within which O has power of strength greater than zero. A husband may have a broad range of power over his wife, but a narrow range of power over his employer. We shall use the term "magnitude of power" to denote the summation of O's power over P in all systems of his range.

The dependence of $s(a)$ on O

Several investigators have been concerned with differences between superficial conformity and "deeper" changes produced by social influence (1, 5, 6, 11, 12, 20, 21, 22, 23, 26, 36, 37). The kinds of systems which are changed and the stability of these changes have been handled by distinctions such as "public *vs.* private attitudes," "overt *vs.* covert behavior," "compliance *vs.* internalization," and "own *vs.* induced forces." Though stated as dichotomies, all of these distinctions suggest an under-

lying dimension of the degree of dependence of the state of a system on O.

³ We define resistance to an attempted induction as a force in the opposite direction which is set up by the same act of O. It must be distinguished from opposition which is defined as existing opposing forces which do not have their source in the same act of O. For example, a boy might resist his mother's order to eat spinach because of the manner of the induction attempt, and at the same time he might oppose it because he didn't like spinach.

lying dimension of the degree of dependence of the state of a system on O.

We assume that any change in the state of a system is produced by a change in some factor upon which it is functionally dependent. The state of an opinion, for example, may change because of a change either in some internal factor such as a need or in some external factor such as the arguments of O. Likewise the maintenance of the same state of a system is produced by the stability or lack of change in the internal and external factors. In general, then, psychological change and stability can be conceptualized in terms of dynamic dependence. Our interest is focused on the special case of dependence on an external agent, O (31).

In many cases the initial state of the system has the character of a quasi-stationary equilibrium with a central force field around $s_1(a)$ (26, 106). In such cases we may derive a tendency toward retrogression to the original state as soon as the force induced by O is removed.⁴ Let us suppose that O exerts influence producing a new state of the system, $s_2(a)$. Is $s_2(a)$ now dependent on the continued presence of O? In principle we could answer this question by removing any traces of O from the life space of P and by observing the consequent state of the system at time 3. If $s_3(a)$ retrogresses completely back to $s_1(a)$, then we may conclude that maintenance of $s_2(a)$ was completely dependent on O; but if $s_3(a)$ equals $s_2(a)$, this lack of change shows that $s_2(a)$ has become completely independent of O. In general the degree of dependence of $s_2(a)$ on O, following O's influence, may be defined as equal to the amount of retrogression following the removal of O from the life space of P:

$$\text{Degree of dependence of } s_2(a) \text{ on O} = s_2(a) - s_3(a).$$

A given degree of dependence at time 2 may later change, for example, through the gradual weakening of O's influence. At this later time, the degree of dependence of $s_4(a)$ on O, would still be equal to the amount of retrogression toward the initial state of equilibrium $s_1(a)$. Operational measures of the degree of dependence on O will, of course, have to be taken under conditions where all other factors are held constant.

Consider the example of three separated employees who have been working at the same steady level of production despite normal, small fluctuations in the work environment. The supervisor orders each to increase his production, and the level of each goes up from 100 to 115 pieces per day. After a week of producing at the new rate of 115 pieces per day, the supervisor is removed for a week. The production of em-

⁴ Miller (33) assumes that all living systems have this character. However, it may be that some systems in the life space do not have this elasticity.

ployee A immediately returns to 100 but B and C return to only 110 pieces per day. Other things being equal, we can infer that A's new rate was completely dependent on his supervisor whereas the new rate of B and C was dependent on the supervisor only to the extent of 5 pieces. Let us further assume that when the supervisor returned, the production of B and of C returned to 115 without further orders from the supervisor. Now another month goes by during which B and C maintain a steady 115 pieces per day. However, there is a difference between them: B's level of production still depends on O to the extent of 5 pieces whereas C has come to rely on his own sense of obligation to obey the order of his legitimate supervisor rather than on the supervisor's external pressure for the maintenance of his 115 pieces per day. Accordingly, the next time the supervisor departs, B's production again drops to 110 but C's remains at 115 pieces per day. In cases like employee B, the degree of dependence is contingent on the perceived probability that O will observe the state of the system and note P's conformity (5, 6, 11, 12, 23). The level of observability will in turn depend on both the nature of the system (e.g., the difference between a covert opinion and overt behavior) and on the environmental barriers to observation (e.g., O is too far away from P). In other cases, for example that of employee C, the new behavior pattern is highly dependent on his supervisor, but the degree of dependence of the new state will be related not to the level of observability but rather to factors inside P, in this case a sense of duty to perform an act legitimately prescribed by O. The internalization of social norms is a related process of decreasing degree of dependence of behavior on an external O and increasing dependence on an internal value; it is usually assumed that internalization is accompanied by a decrease in the effects of level of observability (37).

The concepts "dependence of a system on O" and "observability as a basis for dependence" will be useful in understanding the stability of conformity. In the next section we shall discuss various types of power and the types of conformity which they are likely to produce.

The Bases of Power

By the basis of power we mean the relationship between O and P which is the source of that power. It is rare that we can say with certainty that a given empirical case of power is limited to one source. Normally, the relation between O and P will be characterized by several qualitatively different variables which are bases of power (30). Although there are undoubtedly many possible bases of power which may be distinguished, we shall here define five which seem especially common and important. These five bases of O's power are: (a) reward power, based

on P's perception that O has the ability to mediate rewards for him; (b) coercive power, based on P's perception that O has the ability to mediate punishments for him; (c) legitimate power, based on the perception by P that O has a legitimate right to prescribe behavior for him; (d) referent power, based on P's identification with O; (e) expert power, based on the perception that O has some special knowledge or expertise.

Our first concern is to define the bases which give rise to a given type of power. Next, we describe each type of power according to its strength, range, and the degree of dependence of the new state of the system which is most likely to occur with each type of power. We shall also examine the other effects which the exercise of a given type of power may have upon P and his relationship to O. Finally, we shall point out the interrelationships between different types of power, and the effects of use of one type of power by O upon other bases of power which he might have over P. Thus we shall both define a set of concepts and propose a series of hypotheses. Most of these hypotheses have not been systematically tested, although there is a good deal of evidence in favor of several. No attempt will be made to summarize that evidence here.

Reward Power

Reward power is defined as power whose basis is the ability to reward. The strength of the reward power of O/P increases with the magnitude of the rewards which P perceives that O can mediate for him. Reward power depends on O's ability to administer positive valences and to remove or decrease negative valences. The strength of reward power also depends upon the probability that O can mediate the reward, as perceived by P. A common example of reward power is the addition of a piece-work rate in the factory as an incentive to increase production.

The new state of the system induced by a promise of reward (for example the factory worker's increased level of production) will be highly dependent on O. Since O mediates the reward, he controls the probability that P will receive it. Thus P's new rate of production will be dependent on his subjective probability that O will reward him for conformity minus his subjective probability that O will reward him even if he returns to his old level. Both probabilities will be greatly affected by the level of observability of P's behavior. Incidentally, a piece rate often seems to have more effect on production than a merit rating system because it yields a higher probability of reward for conformity and a much lower probability of reward for nonconformity.

The utilization of actual rewards (instead of promises) by O will tend over time to increase the attraction of P toward O and therefore the

referent power of O over P. As we shall note later, such referent power will permit O to induce changes which are relatively independent. Neither rewards nor promises will arouse resistance in P, provided P considers it legitimate for O to offer rewards.

The range of reward power is specific to those regions within which O can reward P for conforming. The use of rewards to change systems within the range of reward power tends to increase reward power by increasing the probability attached to future promises. However, unsuccessful attempts to exert reward power outside the range of power would tend to decrease the power; for example if O offers to reward P for performing an impossible act, this will reduce for P the probability of receiving future rewards promised by O.

Coercive Power

Coercive power is similar to reward power in that it also involves O's ability to manipulate the attainment of valences. Coercive power of O/P stems from the expectation on the part of P that he will be punished by O if he fails to conform to the influence attempt. Thus negative valences will exist in given regions of P's life space, corresponding to the threatened punishment by O. The strength of coercive power depends on the magnitude of the negative valence of the threatened punishment multiplied by the perceived probability that P can avoid the punishment by conformity, i.e., the probability of punishment for non-conformity minus the probability of punishment for conformity (11). Just as an officer of a piece-rate bonus in a factory can serve as a basis for reward power, so the ability to fire a worker if he falls below a given level of production will result in coercive power.

Coercive power leads to dependent change also; and the degree of dependence varies with the level of observability of P's conformity. An excellent illustration of coercive power leading to dependent change is provided by a clothes presser in a factory observed by Coch and French (3). As her efficiency rating climbed above average for the group the other workers began to "scapegoat" her. That the resulting plateau in her production was not independent of the group was evident once she was removed from the presence of the other workers. Her production immediately climbed to new heights.⁵

At times, there is some difficulty in distinguishing between reward power and coercive power. Is the withholding of a reward really equivalent to a punishment? Is the withdrawal of punishment equivalent to a reward? The answer must be a psychological one—it depends upon the situation as it exists for P. But ordinarily we would answer these questions in the affirmative; for P, receiving a reward is a positive valence as is the relief of suffering. There is some evidence (5) that conformity to group norms in order to gain acceptance (reward power) should be distinguished from conformity as a means of forestalling rejection (coercive power).

The distinction between these two types of power is important because the dynamics are different. The concept of "sanctions" sometimes lumps the two together despite their opposite effects. While reward power may eventually result in an independent system, the effects of coercive power will continue to be dependent. Reward power will tend to increase the attraction of P toward O; coercive power will decrease this attraction (11, 12). The valence of the region of behavior will become more negative, acquiring some negative valence from the threatened punishment. The negative valence of punishment would also spread to other regions of the life space. Lewin (25) has pointed out this distinction between the effects of rewards and punishment. In the case of threatened punishment, there will be a resultant force on P to leave the field entirely. Thus, to achieve conformity, O must not only place a strong negative valence in certain regions through threat of punishment, but O must also introduce restraining forces, or other strong valences, so as to prevent P from withdrawing completely from O's range of coercive power. Otherwise the probability of receiving the punishment, if P does not conform, will be too low to be effective.

Legitimate Power

Legitimate power is probably the most complex of those treated here, embodying notions from the structural sociologist, the group-norm and role oriented social psychologist, and the clinical psychologist.

There has been considerable investigation and speculation about socially prescribed behavior, particularly that which is specific to a given role or position. Linton (29) distinguishes group norms according to whether they are universals for everyone in the culture, alternatives (the individual having a choice as to whether or not to accept them), or specialties (specific to given positions). Whether we speak of internalized norms, role prescriptions and expectations (34), or internalized pressures (15), the fact remains that each individual sees certain regions toward which he should locomote, some regions toward which he should not locomote, and some regions toward which he may locomote if they are generally attractive for him. This applies to specific behaviors in

⁵ Though the primary influence of coercive power is dependent, it often produces secondary changes which are independent. Brainwashing, for example, utilizes coercive power to produce many primary changes in the life space of the prisoner, but these dependent changes can lead to identification with the aggressor and hence to secondary changes in ideology which are independent.

which he may, should, or should not engage; it applies to certain attitudes or beliefs which he may, should, or should not hold. The feeling of "oughtness" may be an internalization from his parents, from his teachers, from his religion, or may have been logically developed from some idiosyncratic system of ethics. He will speak of such behaviors with expressions like "should," "ought to," or "has a right to." In many cases, the original source of the requirement is not recalled.

Though we have oversimplified such evaluations of behavior with a positive-neutral-negative trichotomy, the evaluation of behaviors by the person is really more one of degree. This dimension of evaluation, we shall call "legitimacy." Conceptually, we may think of legitimacy as a valence in a region which is induced by some internalized norm or value. This value has the same conceptual property as power, namely an ability to induce force fields (26, 40-41). It may or may not be correct that values (or the superego) are internalized parents, but at least they can set up force fields which have a phenomenal "oughtness" similar to a parent's prescription. Like a value, a need can also induce valences (i.e., force fields) in P's psychological environment, but these valences have more the phenomenal character of noxious or attractive properties of the object or activity. When a need induces a valence in P, for example, when a need makes an object attractive to P, this attraction applies to P but not to other persons. When a value induces a valence, on the other hand, it not only sets up forces on P to engage in the activity, but P may feel that all others ought to behave in the same way. Among other things, this evaluation applies to the legitimate right of some other individual or group to prescribe behavior or beliefs for a person even though the other cannot apply sanctions.

Legitimate power of O/P is here defined as that power which stems from internalized values in P which dictate that O has a legitimate right to influence P and that P has an obligation to accept this influence. We note that legitimate power is very similar to the notion of legitimacy of authority which has long been explored by sociologists, particularly by Weber (41), and more recently by Goldhammer and Shils (14). However, legitimate power is not always a role relation: P may accept an induction from O simply because he had previously promised to help O and he values his word too much to break the promise. In all cases, the notion of legitimacy involves some sort of code or standard, accepted by the individual, by virtue of which the external agent can assert his power. We shall attempt to describe a few of these values here.

Bases for legitimate power. Cultural values constitute one common basis for the legitimate power of one individual over another. O has characteristics which are specified by the culture as giving him the right to prescribe behavior for P, who may not have these characteristics. These

bases, which Weber (41) has called the authority of the "eternal yesterday," include such things as age, intelligence, caste, and physical characteristics. In some cultures, the aged are granted the right to prescribe behavior for others in practically all behavior areas. In most cultures, there are certain areas of behavior in which a person of one sex is granted the right to prescribe behavior for the other sex.

Acceptance of the social structure is another basis for legitimate power. If P accepts as right the social structure of his group, organization, or society, especially the social structure involving a hierarchy of authority, P will accept the legitimate authority of O who occupies a superior office in the hierarchy. Thus legitimate power in a formal organization is largely a relationship between offices rather than between persons. And the acceptance of an office as *right* is a basis for legitimate power—a judge has a right to levy fines, a foreman should assign work, a priest is justified in prescribing religious beliefs, and it is the management's prerogative to make certain decisions (10). However, legitimate power also involves the perceived right of the person to hold the office.

Designation by a legitimizing agent is a third basis for legitimate power. An influencer O may be seen as legitimate in prescribing behavior for P because he has been granted such power by a legitimizing agent whom P accepts. Thus a department head may accept the authority of his vice-president in a certain area because that authority has been specifically delegated by the president. An election is perhaps the most common example of a group's serving to legitimize the authority of one individual or office for other individuals in the group. The success of such legitimizing depends upon the acceptance of the legitimizing agent and procedure. In this case it depends ultimately on certain democratic values concerning election procedures. The election process is one of legitimizing a person's right to an office which already has a legitimate range of power associated with it.

Range of legitimate power of O/P. The areas in which legitimate power may be exercised are generally specified along with the designation of that power. A job description, for example, usually specifies supervisory activities and also designates the person to whom the job-holder is responsible for the duties described. Some bases for legitimate authority carry with them a very broad range. Culturally derived bases for legitimate power are often especially broad. It is not uncommon to find cultures in which a member of a given caste can legitimately prescribe behavior for all members of lower castes in practically all regions. More common, however, are instances of legitimate power where the range is specifically and narrowly prescribed. A sergeant in the army is given a specific set of regions within which he can legitimately prescribe behavior for his men.

The attempted use of legitimate power which is outside of the range of legitimate power will decrease the legitimate power of the authority figure. Such use of power which is not legitimate will also decrease the attractiveness of O (11, 12, 36).

Legitimate power and influence. The new state of the system which results from legitimate power usually has high dependence on O though it may become independent. Here, however, the degree of dependence is not related to the level of observability. Since legitimate power is based on P's values, the source of the forces induced by O include both these internal values and O. O's induction serves to activate the values and to relate them to the system which is influenced, but thereafter the new state of the system may become directly dependent on the values with no mediation by O. Accordingly this new state will be relatively stable and consistent across varying environmental situations since P's values are more stable than his psychological environment.

We have used the term legitimate not only as a basis for the power of an agent, but also to describe the general behaviors of a person. Thus, the individual P may also consider the legitimacy of the attempts to use other types of power by O. In certain cases, P will consider that O has a legitimate right to threaten punishment for nonconformity; in other cases, such use of coercion would not be seen as legitimate. P might change in response to coercive power of O, but it will make a considerable difference in his attitude and conformity if O is not seen as having a legitimate right to use such coercion. In such cases, the attraction of P for O will be particularly diminished, and the influence attempt will arouse more resistance (11). Similarly the utilization of reward power may vary in legitimacy; the word "bribe," for example, denotes an illegitimate reward.

Referent Power

The referent power of O/P has its basis in the identification of P with O. By identification, we mean a feeling of oneness of P with O, or a desire for such an identity. If O is a person toward whom P is highly attracted, P will have a desire to become closely associated with O. If O is an attractive group, P will have a feeling of membership or a desire to join. If P is already closely associated with O he will want to maintain this relationship (40). P's identification with O can be established or maintained if P behaves, believes, and perceives as O does. Accordingly O has the ability to influence P, even though P may be unaware of this referent power. A verbalization of such power by P might be, "I am like O, and therefore I shall behave or believe as O does," or "I want to be like O, and I will be more like O if I behave or believe as O does." The stronger the identification of P with O the greater the referent power of O/P.

Similar types of power have already been investigated under a number of different formulations. Festinger (7) points out that in an ambiguous situation, the individual seeks some sort of "social reality" and may adopt the cognitive structure of the individual or group with which he identifies. In such a case, the lack of clear structure may be threatening to the individual and the agreement of his beliefs with those of a reference group will both satisfy his need for structure and give him added security through increased identification with his group (16, 19).

We must try to distinguish between referent power and other types of power which might be operative at the same time. If a member is attracted to a group and he conforms to its norms only because he fears ridicule or expulsion from the group for nonconformity, we would call this coercive power. On the other hand if he conforms in order to obtain praise for conformity, it is a case of reward power. The basic criterion for distinguishing referent power from both coercive and reward power is the mediation of the punishment and the reward by O: to the extent that O mediates the sanctions (i.e., has means control over P) we are dealing with coercive and reward power; but to the extent that P avoids discomfort or gains satisfaction by conformity based on identification, regardless of O's responses, we are dealing with referent power. Conformity with majority opinion is sometimes based on a respect for the collective wisdom of the group, in which case it is expert power. It is important to distinguish these phenomena, all grouped together elsewhere as "pressures toward uniformity," since the type of change which occurs will be different for different bases of power.

The concepts of "reference group" (39) and "prestige suggestion" may be treated as instances of referent power. In this case, O, the prestigious person or group, is valued by P; because P desires to be associated or identified with O, he will assume attitudes or beliefs held by O. Similarly a negative reference group which O dislikes and evaluates negatively may exert negative influence on P as a result of negative referent power.

It has been demonstrated that the power which we designate as referent power is especially great when P is attracted to O (2, 7, 8, 9, 13, 23, 30). In our terms, this would mean that the greater the attraction, the greater the identification, and consequently the greater the referent power. In some cases, attraction or prestige may have a specific basis, and the range of referent power will be limited accordingly: a group of campers may have great referent power over a member regarding campcraft, but considerably less effect on other regions (30). However, we hypothesize that the greater the attraction of P toward O, the broader the range of referent power of O/P.

The new state of a system produced by referent power may be dependent on or independent of O; but the degree of dependence is not

affected by the level of observability to O (6, 23). In fact, P is often not consciously aware of the referent power which O exerts over him. There is probably a tendency for some of these dependent changes to become independent of O quite rapidly.

Expert Power

The strength of the expert power of O/P varies with the extent of the knowledge or perception which P attributes to O within a given area. Probably P evaluates O's expertness in relation to his own knowledge as well as against an absolute standard. In any case expert power results in primary social influence on P's cognitive structure and probably not on other types of systems. Of course changes in the cognitive structure can change the direction of forces and hence of locomotion, but such a change of behavior is secondary social influence. Expert power has been demonstrated experimentally (9, 33). Accepting an attorney's advice in legal matters is a common example of expert influence; but there are many instances based on much less knowledge, such as the acceptance by a stranger of directions given by a native villager.

Expert power, where O need not be a member of P's group, is called "informational power" by Deutsch and Gerard (4). This type of expert power must be distinguished from influence based on the content of communication as described by Hovland et al. (17, 18, 23, 24). The influence of the content of a communication upon an opinion is presumably a secondary influence produced after the *primary* influence (i.e., the acceptance of the information). Since power is here defined in terms of the primary changes, the influence of the content on a related opinion is not a case of expert power as we have defined it, but the initial acceptance of the validity of the content does seem to be based on expert power or referent power. In other cases, however, so-called facts may be accepted as self-evident because they fit into P's cognitive structure; if this impersonal acceptance of the truth of the fact is independent of the more or less enduring relationship between O and P, then P's acceptance of the fact is not an actualization of expert power. Thus we distinguish between expert power based on the credibility of O and informational influence which is based on characteristics of the stimulus such as the logic of the argument or the "self-evident facts."

Wherever expert influence occurs it seems to be necessary both for P to think that O knows and for P to trust that O is telling the truth (rather than trying to deceive him).

Expert power will produce a new cognitive structure which is initially relatively dependent on O, but informational influence will produce a more independent structure. The former is likely to become more in-

dependent with the passage of time. In both cases the degree of dependence on O is not affected by the level of observability.

The "sleeper effect" (18, 24) is an interesting case of a change in the degree of dependence of an opinion on O. An unreliable O (who probably had negative referent power but some positive expert power) presented "facts" which were accepted by the subjects and which would normally produce secondary influence on their opinions and beliefs. However, the negative referent power aroused resistance and resulted in negative social influence on their beliefs (i.e., set up a force in the direction opposite to the influence attempt), so that there was little change in the subjects' opinions. With the passage of time, however, the subjects tended to forget the identity of the negative communicator faster than they forgot the contents of his communication, so there was a weakening of the negative referent influence and a consequent delayed positive change in the subjects' beliefs in the direction of the influence attempt ("sleeper effect"). Later, when the identity of the negative communicator was experimentally reinstated, these resisting forces were reinstated, and there was another negative change in belief in a direction opposite to the influence attempt (24).

The range of expert power, we assume, is more delimited than that of referent power. Not only is it restricted to cognitive systems but the expert is seen as having superior knowledge or ability in very specific areas, and his power will be limited to these areas, though some "halo effect" might occur. Recently, some of our renowned physical scientists have found quite painfully that their expert power in physical sciences does not extend to regions involving international politics. Indeed, there is some evidence that the attempted exertion of expert power outside of the range of expert power will reduce that expert power. An undermining of confidence seems to take place.

Linus Pauling

Dear Uncle

Summary

We have distinguished five types of power: referent power, expert power, reward power, coercive power, and legitimate power. These distinctions led to the following hypotheses.

1. For all five types, the stronger the basis of power the greater the power.
2. For any type of power the size of the range may vary greatly, but in general referent power will have the broadest range.
3. Any attempt to utilize power outside the range of power will tend to reduce the power.
4. A new state of a system produced by reward power or coercive power will be highly dependent on O, and the more observable P's con-

formity the more dependent the state. For the other three types of power, the new state is usually dependent, at least in the beginning, but in any case the level of observability has no effect on the degree of dependence.

5. Coercion results in decreased attraction of P toward O and high resistance; reward power results in increased attraction and low resistance.

6. The more legitimate the coercion the less it will produce resistance and decreased attraction.

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